

Linear Algebra Quiz 1

Consider the following system of linear equations:

$$\begin{array}{rrrcl} x_1 & +2x_2 & -2x_3 & = & 9 \\ 3x_1 & +6x_2 & +x_3 & = & 34 \\ -2x_1 & -4x_2 & +5x_3 & = & -17 \end{array}$$

- 1.) Write down the augmented matrix corresponding to this system.
- 2.) Perform Gaussian elimination on this matrix to obtain a matrix in **reduced row echelon form**.
- 3.) Using the result of (2) above, find all solutions to the original linear system.